

Notropis bifrenatus (Bridle Shiner)

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: *Actinopterygii* (Ray-finned Fishes)

Order: *Cypriniformes* (Carps, Minnows, Loaches And Allies)

Family: *Cyprinidae* (Carps And Minnows)

General comments: none

Species Conservation Range Maps for Bridle Shiner:

Town Map: [Notropis bifrenatus_Towns.pdf](#)

Subwatershed Map: [Notropis bifrenatus_HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation: NA

State Special Concern or NMFS Species of Concern:

Notropis bifrenatus is listed as a species of Special Concern in Maine.

Recent Significant Declines: NA

Regional Endemic: NA

High Regional Conservation Priority:

Northeast Endangered Species and Wildlife Diversity Technical Committee:

Risk: Yes, Data: Yes, Area: Yes, Spec: No, Warrant Listing: No, Total Categories with "Yes": 3

Northeast Regional Synthesis (RSGCN):

Responsibility: High, Concern: Very High

NatureServe:

Global Rank: G3

American Fisheries Society, Endangered Species Committee:

Status: Vulnerable, Trend: taxon is new, Listing: 1, Global Rank: G3, Comment:

High Climate Change Vulnerability: NA

Understudied rare taxa: NA

Historical: NA

Culturally Significant: NA

Habitats Assigned to Bridle Shiner:

Formation Name	Freshwater Aquatic
Macrogroup Name	Lakes and Ponds
Habitat System Name:	Eutrophic
Habitat System Name:	Mesotrophic or Intermediate
Macrogroup Name	Rivers and Streams
Habitat System Name:	Headwaters and Creeks
Habitat System Name:	Medium River
Habitat System Name:	Small River

Stressors Assigned to Bridle Shiner:

Stressor Priority Level based on Severity and Actionability	Moderate Severity		High Severity	
	Highly Actionable		Medium-High	
	Moderately Actionable		Medium	
	Actionable with Difficulty		Low	

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IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

IUCN Level 2 Threat: Diseases of Unknown Cause

Severity: Moderate Severity **Actionability:** Highly actionable

Notes: Unknown if BDS susceptible or a carrier of fish diseases, but likely susceptible to a variety of pathogens and parasites. Continued vigilance, baitfish rules, dealer inspections and restrictions on live fish imports greatly assist with minimizing disease outbreaks.

IUCN Level 2 Threat: Viral-Prion-induced Diseases

Severity: Moderate Severity **Actionability:** Highly actionable

Notes: Unknown if BDS susceptible or a carrier of VHS, but many cyprinids are. VHS currently not presnet in ME, but known occurences are not far away geographically. With continued vigilance, baitfish rules, dealer inspections and restrictions on live fish imports greatly assist with minimizing disease outbreaks.

IUCN Level 1 Threat Other Options

IUCN Level 2 Threat: Lack of knowledge

Severity: Moderate Severity **Actionability:** Highly actionable

Notes: Basic understanding of species distribution, status, and conservation needs in Maine is poor.

IUCN Level 1 Threat Agriculture and Aquaculture

IUCN Level 2 Threat: Annual and Perennial Non-timber crops

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: Sedimentation and siltation from agriculture is a concern. BDS are known to be affected by poor water quality associated with sedimentation and siltation of habitats.

IUCN Level 2 Threat: Livestock Farming and Ranching

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: Sedimentation and siltation from agriculture is a concern. BDS are known to be affected by poor water quality associated with sedimentation and siltation of habitats.

IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Housing and Urban Areas

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: Sedimentation and siltation subsequent to surface water run-off is a concern. BDS are known to be affected by poor water quality associated with sedimentation and siltation of habitats.

IUCN Level 1 Threat Transportation and Service Corridors

IUCN Level 2 Threat: Roads and Railroads

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: Sedimentation and siltation from road run-off is a concern. BDS are known to be affected by poor water quality associated with sedimentation and siltation of habitats.

IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Habitat Shifting or Alteration

Severity: Moderate Severity **Actionability:** Actionable with difficulty

Notes: Habitat relationships are largely unknown, therefore projected changes due to climate change are unknown.

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IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

IUCN Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Severity: Severe

Actionability: Actionable with difficulty

Notes: A poor competitor with large, predatory invasive fishes (PIK, black basses, etc). Once predatory invasive Sp established, it is very difficult to eradicate from typical BDS habitats. Also, invasive plants may detrimentally affect preferred vegetation for BDS.

IUCN Level 2 Threat: Problematic Native Species-Diseases

Severity: Severe

Actionability: Actionable with difficulty

Notes: A poor competitor with many non-indigenous species that may be relatively recent additions to the local fish fauna - ex. Perches, chain pickerel, and others prone to consuming small sized fishes.

Species Level Conservation Actions Assigned to Bridle Shiner:

None. *Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.*

Conservation Actions Associated with the Rare Minnows Guild:

Conservation Action	Category: Research	Biological Priority: critical	Type: new
Determine population abundance, habitat use, size and age structure and interaction with other fish species in representative waters			

Stressor(s) Addressed By This Conservation Action

Habitat Shifting or Alteration, Lack of knowledge

Conservation Action	Category: Research	Biological Priority: critical	Type: new
Develop a robust, reliable method to assess population trends, habitat associations, and geographic distribution.			

Stressor(s) Addressed By This Conservation Action

Lack of knowledge

Conservation Action	Category: Research	Biological Priority: critical	Type: new
Determine susceptibility and risks associated with certain disease scenarios			

Stressor(s) Addressed By This Conservation Action

Invasive Non-native-Alien Species-Diseases, Viral-Prion-induced Diseases, Diseases of Unknown Cause, Problematic Species-Diseases of Unknown Origin, Lack of knowledge

Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified

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in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.